

III.—*Preliminary Descriptions of new Species of Amphipoda from the 'Discovery' Antarctic Expedition, 1902-1904.*
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[Continued from vol. xvii. p. 458.]

Proboloides antarcticus, sp. n.

W.Q. from Feb. to Dec. 1902: in sponges &c.

General characters as in *Proboloides (Probolium) gregarium* (Sars).

First gnathopods.—Female: wrist subequal in length to, but wider than, the hand, the hind margins of both convex and setose. Male: wrist considerably longer and but slightly wider than the hand; otherwise like the female.

Second gnathopods.—Female: carpal process rounded, setose; hand with subparallel margins; hind margin subequal to the palm, which is defined by a small tooth and two spines. Male: *hinder part of the lower margin of the side-plates irregularly serrate. Hand as long as the three preceding joints, the hind margin shorter than the front and terminating in a sharp tooth, forming the palmar angle; palm deeply excavate, with a central tooth and a denticulate ridge near the base of the dactylus.* In a younger male the palm is less deeply excavate, the central tooth wider, blunter, and denticulate, and the ridge as wide as the excavation.

Third peræopods: the concave hind margin of the narrow first joint is produced almost to the end of the second, *terminating in a divided lobe.*

Fourth and fifth peræopods as in *P. gregarium* (Sars).

Third uropods: peduncle shorter than the ramus, with 5 spines; first joint of ramus subequal to second, with 3 spines.

Telson reaching the end of the peduncle of the third uropods, with 3 spines on each margin.

Length of female 3.5 mm.; the male considerably larger.

PROBOLIELLA, gen. nov.

Mandibles with a *two-jointed palp*.

First maxillæ with a *two-jointed palp*.

Maxillipeds with the *inner plates divided to the base*, the outer more or less developed.

Second peræopods *not stronger than the first*.

Third peræopods with the first joint *narrow*; fourth and fifth pair with the first joint *expanded*.

Differs from *Probolium*, Sars, in the absence of the small third joint of the mandibular palp and the equal strength of the first and second peræopods.

Proboliella typica, sp. n.

W.Q. Hut Point, 11/11/02, one; 13/9/02, one; 13/2/04, one. All females.

Lower part of the hind margin of the *third pleon-segment* produced backwards and rounded. *Eyes* small, round, colourless in spirit.

Upper antennæ without an appendage, reaching the middle of the flagellum of the lower, the third joint half as long as the second. Flagellum 7-jointed, as long as the last two joints of the peduncle. *Mandibles* bent downwards from the base of the palp to the coarsely toothed cutting-edge; palp more than half the length of the mandible, the first joint less than one fourth the length of the second.

Maxillipeds: inner plates divided, outer distinct but narrow; first and second joints of the palp subequal, the third longer.

First gnathopods: wrist shorter and narrower than the hand, the latter wider in the middle than in *Proboloides*, the palm very oblique, subequal to the hind margin, spinulose and defined by 2 or 3 spines.

Second gnathopods: first joint as long and more than half as wide as the hand, margins setose; third joint produced in an acute point extending beyond the carpal process; wrist produced in a narrow setose process. Hand similar to but much larger than that of the first pair, subovoid, the palm longer than the hind margin, convex, spinulose, and defined by a strong tooth, beyond which is a smaller tooth and a group of spines.

The first and second pairs of peræopods are alike; first joint oblong, curved, almost as long as the next three, and three times as wide; third and fifth subequal, fourth rather shorter; dactylus slender, two thirds the length of the fifth joint.

Third peræopods: first joint narrow-oblong, straight.

The fourth and fifth pairs are alike: the first joint oval, deeper than wide, the hind margin smooth.

Peduncle of the *third pair of uropods* subequal to each joint of the ramus.

Telson not reaching the end of the peduncle of the third uropods, narrowing rather abruptly to a point, with 3 spines on each side.

Length 3 mm.

THAUMATELSON, gen. nov.

Palp of the first maxillæ *two-jointed*.

First gnathopods *distinctly subchelate*; first joints of all the pereopods narrow.

Telson large, entire, oval, *and set in a vertical plane on its longer edge*.

Otherwise like *Metopa*.

Thaumatelson Herdmani, sp. n.

W.Q. Oct. 1902, from sponges, Hut Point; one. W.Q. 13/2/04: Hut Point; one.

Body: fourth side-plates *unusually large, covering the bases of the last three pairs of pereopods*. Last two pleon-segments with a postero-dorsal tooth. Segments of the urus *coalesced*.

Antennæ subequal, longer than the head. *Upper antennæ* without an appendage; flagellum shorter than the peduncle. *Lower antennæ*: peduncle subequal to that of the upper.

First gnathopods: wrist triangular, about half as long as the hand, which is subquadrate, with the palm transverse, rather convex, as long as the hind margin.

Second gnathopods: wrist produced beyond the base of the hand; hand subtriangular, widening distally, nearly twice as long as wide; distal half of the hind margin slightly concave, ending in a tooth, beyond which is a long and a short spine defining the transverse spinulose palm.

Pereopods all similar, with narrow first joints.

Third uropods: ramus subequal to the peduncle, the first joint rather longer than the second.

Telson as described above.

Length 2.5 mm.

A very remarkable little species, the form of the telson being probably unique in the Amphipoda; the hand of the second gnathopods recalls *Amphilochus*.

*Ædiceroïdes Calmani**, sp. n.

Coulman Island, 13/1/02, 100 fath; two females. Flagon Pt., 23/1/02; one young. Barrier, 29/1/02, 100 fath.; one.

Body: mesosome-segments very short, *subequal*; first pleon-segment longer than the second and much shorter than the third, which, as well as the first urus-segment, has a shallow dorsal carina and a rounded posterior margin. The

* After my friend Dr. W. T. Calnan, to whom I am much indebted for his valuable assistance.

last segment of the mesosome and first two segments of the pleon have a dorsal tubercle near the middle. The first four side-plates are as deep as the segments.

Head: rostrum shorter than the rest of the head and reaching the end of the first joint of the upper antennæ, lower margin almost straight. Eyes contiguous above, large, dark. Upper antennæ not quite reaching the end of the second joint of the lower, the first joint rather longer and twice as wide as the second, widening distally; the second twice as long as the third; the first and second with fascicles of plumose setæ. Flagellum 10-jointed, shorter than the peduncle. Mandibular palp with the second joint subequal to the third in length, but more than twice as wide near its base, both joints with long spine-like setæ on the front margin.

In other respects this species resembles *Æ. rostrata*, Stebbing (*Æ. conspicua* on pls. lx. and lxi. Chall. Report), from which it differs in the conspicuous eyes, different shape of rostrum, proportions of mesosome-segments, and mandibular palp.

Length of female 30 mm.

Epimeria macrolonta, sp. n.

22/1/02, 500 fath.; three. W.Q. 4/9/03: Hole 12; one.

Body: segments of mesosome and pleon, except the first two (of which the first is twice as long as the second), armed with lateral teeth increasing in length backwards, with longer curved dorsal teeth, those of the last mesosome and first two pleon-segments the longest. First two segments of the urus with an upright dorsal tooth; the third segment with a lateral carina ending in an upturned sharp tooth. Side-plates as in *E. cornigera* (Fabr.).

Head: rostrum much longer than the rest of the head, slightly decurved; lower margin of the ocular lobe produced forward in an acute tooth. Eye large, colourless in spirit.

Upper antennæ shorter than the lower; first joint with a subequal distal tooth on each side; second with two long subequal distal teeth reaching the seventh joint of the flagellum; third about half as long as the second, with a small distal tooth. Flagellum 32-jointed, slender.

Gnathopods as in *E. parasitica*, M. Sars.

Third pereopods: first joint rather longer than and twice as wide as the third; hind margin concave, with a rounded lobe at the proximal end and a large very sharp tooth, directed backwards, at the distal; front margin concave in the middle. Hind margins of the first joints of the fourth and fifth pairs

convex in the middle, the first joint of the fifth the widest; otherwise like the third pair.

The third uropods have the upper margins of the peduncles produced behind in an acute tooth; the outer rami are slightly shorter than the inner, which are about three times as long as the peduncle, narrowly lanceolate, with a few small spines on both margins.

Telson deeply notched, the ends of the divisions subacute.

Length 33 mm.

This species has a superficial resemblance to *Acanthozone*, Boeck, and *Acanthechinus*, Stebbing, from both of which it differs in the shape of the telson and other structural points.

EPIMERIELLA, gen. nov.

Body without dorsal teeth on the mesosome.

Head with a very small rostrum.

Fifth pair of side-plates small, wider than deep, without a projecting process.

Mandibles with the molar tubercle imperfectly developed.

Third and fourth peræopods longer than the fifth.

Otherwise like *Epimeria*.

*Epimeriella macronyx**, sp. n.

W.Q., May and June 1903; five young. 26/2/04; one, length 25 mm.

Body: mesosome smooth; first and third segments subequal and much longer than the second, remaining segments increasing in length successively. First four side-plates as in *Epimeria*; fifth small, transverse, with rounded ends. Pleon with an obscure dorsal carina; hind and lower margins of the third segment straight and forming a right angle. Urus with the first segment depressed in front and provided with a postero-dorsal tooth.

Head slightly produced in front. *Eyes* large, prominent, round-oval, colourless. *Antennæ* subequal, unarmed. *Mandibles* with cutting-edges dentate, spine-row of about 20 spines; palp rather longer than the mandible, first joint short, second and third subequal.

First gnathopods: wrist subequal to and rather wider than the hand, which is subovate; the palm undefined and pectinate, the whole hind margin sparsely and unequally spinous.

Second gnathopods like the first, except the palm, which is more transverse.

* From the long dactyli of the third and fourth peræopods.

Second peraeopods: first joint narrow-oblong, subequal to the third and fourth united. Dactylus almost straight and not flexed, as long as the third joint.

Third and fourth peraeopods subequal; first joints oblong, twice as long as wide. *Dactyli* longer than the fifth joint, especially in young specimens, tapering gradually, not flexed.

Fifth peraeopods shorter than the third and fourth, the first joint much wider, with the convex, obscurely serrate hind margin produced nearly to the middle of the third joint. Dactylus as long as the fourth joint, which is shorter than the fifth.

Third uropods: rami subequal, nearly twice as long as the peduncle, with fine spines on both margins.

Telson reaching to about one fourth the length of the rami of the third uropods, deeply notched at the end, with a minute notch on the tip of each division.

The description of the external characters of the body is taken from the large specimen (25 mm.) not dissected, the rest from one of 6 mm.

IV.—*Rhynchotal* Notes.—XXXVIII. By W. L. DISTANT.

THE following descriptions and notes are preparatory to a synonymical catalogue of the family Fulgoridæ which I have now in preparation. I reserve synopses of the genera to the catalogue itself, as there are genera which I have not seen and others which have still to be described, which render the formation of such keys impossible for the present.

Fam. Fulgoridæ.

Subfam. FULGORINÆ.

Genus EURYSTHEUS.

Eurystheus, Stål, Berl. ent. Zeitschr. vi. p. 305 (1862).

Type, *E. dilatatus*, Westw. (*Fulgora*).

Eurystheus dilatatus.

Fulgora dilatata, Westw. Trans. Linn. Soc. xviii. p. 146, t. xii. figs. 8 & 9 (1841).

Pyrops inducta, Walk. Ins. Saund., Hom. p. 30 (1858).